WHAT IS CLAIMED IS:

1. An optical fiber having a refractive profile comprising:

a core area extended along a predetermined reference axis;

5   a cladding area formed around the external circumference of the core area, wherein

the radii of the core area and cladding area and the refractive profile are selectively selected

so that the optical fiber has the following characteristics:

a zero dispersion wavelength in the range of 1300 to 1350 nm;

a dispersion value in the range of 13 to 18 ps/nm·km at 1550 nm wavelength;

10   a zero dispersion wavelength in the range of 0.046 to 0.079 ps/nm^2·km; and,

an effective cross-section area of 70 µm^2 or more.

2. The optical fiber according to claim 1, wherein the radii of the core area and

cladding area and the refractive profile are selectively selected so that the optical fiber has a

15 negative dispersion value in the range of –6.5 to –1.3 ps/nm·km at 1270 nm wavelength.

3. The optical fiber according to claim 1, wherein the radii of the core area and

cladding area and the refractive profile are selectively selected so that the optical fiber has a

dispersion value in the range of 14.5 to 24.5 ps/nm·km at 1610 nm wavelength.

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4. The optical fiber according to claim 1, wherein the optical fiber is a depressed

clad type optical fiber.

5. The optical fiber according to claim 1, wherein the optical fiber is an index matched clad type optical fiber.

5   6. The optical fiber according to claim 1, wherein the radius of the core is 4.45 to 4.5 μm and the radius of the cladding is 10 to 10.3 μm.